

1. (Amended) A method of making a universal gas combustion chamber for use in a plurality of different prefabricated gas fireplace units, comprising the steps of:

5 mixing refractory ceramic fibers (RCFs) with a solution of [silica] inorganic binder to form a thick paste slurry,

molding said thick paste slurry into an open box shape fireplace having a plurality of panels comprising a floor panel, at least two side panels and a top panel,

10 removing said open box fireplace from its mold,

firing said panels to form a non-porous impact resistant open box of panels of a gas fireplace combustion chamber,

15 assembling stack means, trim means, burner means and said plurality of panels into [a] the gas fireplace combustion chamber to provide said different gas fireplace units, and

20 sealing the joints between said stack means and said trim means, [panels] to form [an integrated] unique fireplace units having a reinforced non-porous gas tight gas combustion chamber.

2. (Amended) A method as set forth in Claim 1 wherein the step of sealing further comprises applying [mixing refractory ceramic fibers with] a binder which comprises [mixing vitreous alumina silicate fibers with] an aqueous solution of inorganic [silicate] binder.

3. (Amended) A method as set forth in Claim 2 which further includes the step of machining flanges on the

box [an] opening [in at] for attaching said trim means to at  
least one of said panels.

4. (Amended) A method as set forth in Claim [3] 1  
wherein said step of molding comprises providing [machining]  
an opening in at least one of said panels [further comprises  
the step of punching] forming an exhaust stack aperture in  
said top or back panel.

5. (Amended) A method as set forth in Claim 4  
wherein said step of assembling said burner means includes  
making [machining] an opening in at least one of said  
panels which comprises [the steps of punching] gas burner port  
apertures in said floor panel.

6. (Amended) A method as set forth in Claim 1  
which further includes the steps of,

providing [grooved recesses in] flanges on said  
top panel and said floor panel,

providing flanges on said side[wall] panels  
[panel means], and

the step of assembling said fireplace further  
comprises attaching said trim means to said flanges and door  
means (fitting said sidewall panel means in) to said trim means  
(recessed grooves) to complete said non-porous gas tight  
combustion chamber.

7. (Amended) A method as set forth in Claim [7]  
1 wherein said open box shaped fireplace [sidewall panel  
means] comprises at least one [a plurality of] substantially  
flat steel back [sidewall] panels, and

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overlapped the mating edges of said steel panel  
to other [sidewall] panels to form a gas tight [joint] heat  
exchanger panel.

12. (Amended) A universal open box combustion  
chamber for use in a plurality of different types of fireplac-  
es comprising,

a floor panel,

a top panel,

two side [wall panel means] panels,

said floor panel, said top panel and said side  
[wall] panels [means] each comprising a mixture of vitreous  
alumina silicate fibers and an aqueous solution of [silicate]  
binder formed and dried after molding [mixing] to provide a  
gas tight and impact resistant box of panels of a fireplace  
combustion chamber, [and]

glass door means [for connecting] attached to  
said panels [with each other at their mating joints] to  
provide a gas tight closed box fireplace [high temperature/  
combustion chamber], and

burner means supported by said floor panel.

13. (Amended) A universal combustion chamber as  
set forth in Claim 12 wherein said burner means is supported  
above [top panel and] said floor panel, and [further includes  
sealing grooves.]

apertures in said side and floor panels for  
connecting air and gas to said burner means.

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14. (Amended) A universal combustion chamber as set forth in Claim ~~12~~ wherein said burner [sidewall panel] means comprises a single open U-shaped panel adapted to seal against [said top and] said floor panel[s].

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15. (Amended) A universal combustion chamber as set forth in Claim ~~12~~ [wherein said sidewall panel means] which further comprises a plurality of flat back panels sealed at their mating joints to other panels to form a gas tight combustion chamber.

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16. (Amended) A universal combustion chamber as set forth in Claim ~~12~~ wherein said burner means [for] comprises connecting panels having [comprises] flat mating joints, and

a self hardening high temperature adhesive applied in said joints of said burner means to further assure a gas tight seal.

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18. A universal combustion chamber as set forth in Claim ~~15~~ ~~12~~ which further includes corner reinforcing means attached to corners of said sidewall panels.

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19. (Amended) A method of making a universal gas combustion chamber for use as a component of a fireplace unit, comprising the steps of:

mixing vitreous alumina fibers with an aqueous solution of [silica] inorganic binder to form a thick castable slurry,

forming said thick castable slurry on a forming mold to build up a desired predetermined thickness

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non-rigid fireplace combustion chamber having an open side for  
10 supporting door means and a floor for supporting a gas burner  
[combustion chamber],

drying said formed combustion chamber on  
the mold to provide an uncured stiff one piece combustion  
chamber,

stripping away the forming mold, and

heating said uncured one piece combustion  
chamber at firing temperature to form a rigid non-porous  
impact resistant combustion chamber ready for assembly of said  
door means and gas burner to form a unique [installation in a]  
20 fireplace.

<sup>15</sup>20. The method as set forth in Claim <sup>14</sup>19 which  
further includes the steps of forming pluggable apertures in  
the side or top panels for attachment of an exhaust stack.

<sup>14</sup>21. The method as set forth in Claim <sup>14</sup>19 which  
further includes the steps of supporting a gas burner unit on  
the floor panel, and

providing apertures in said fireplace unit  
5 through which fresh air for combustion is conducted to said  
gas burner.

<sup>17</sup>22. The method as set forth in Claim <sup>14</sup>21 which  
further includes attaching door means to said open side of said  
combustion chamber.

<sup>18</sup>23. The method as set forth in Claim <sup>17</sup>22 wherein the  
step of attaching door means comprises the step of sealing a

16 glass door panel to the vertical and horizontal edges of said  
open side of said fireplace combustion chamber.

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